Amendments to the Specification

On *page 2, please amend paragraphs 2 and 3, lines 15-20, as shown.*

It is an object of the invention to specify a method of determining an angle using magnetoresistive sensors, which method can be carried out in a simple manner and in which the angle can be reliably determined when determining the angle a of the external magnetic field relative to a sensor. ~~This object is achieved by the features specified in claim 1.~~

The core concept of the invention is that the arctan function of the above-described CORDIC algorithm can be approximated with sufficient accuracy by the mathematical relation given in ~~claim 1.~~ Equation 1.

$$\alpha = \tfrac{1}{2} * ((U1/(|U1|+|U2|))-1 * \mathrm{sgn}(U2) \qquad (1)$$

In this case, the output signals U_i of the two full bridges are subjected to simple mathematical operations such as addition, subtraction, multiplication and division, which require only analog processing of the output signals. It is thus possible, using analog means, to determine with sufficient accuracy the angle α for a wide range of applications. Here, the function sgn(U2) is the sign function known per se. This means that the function assumes the value "-1" for an output signal U2<0, the function assumes the value "+ 1" for an output signal U2>0 and the function assumes the value "0" for the value U2=0.

On page 3, please amend paragraphs 3-5, lines 5-25 as shown.

In an example embodiment, by virtue ~~By virtue~~ of the use of ~~AMR~~ anisotropic magneto resistive (AMR) bridges ~~as specified in claim 2~~ exact output signals can be obtained as a function of the angle α of the external magnetic field relative to the sensors or bridges. The arrangement of the bridges in the external magnetic fields is known to the person skilled in the art, as is the reading of the corresponding voltage output signal.

Advantageously, the bridges may be so-called Wheatstone bridges which are particularly suitable for use in motor vehicle technology with the loads which occur there. The output signals of these bridges can be fed to analog further processing in a simple manner.

~~In one preferred development,~~ In another example embodiment, the output signals of the bridges are processed only by means of analog elements or electronic components. ~~electronic components, as specified in claim 3.~~ This means that the output signals of the bridges are processed only by means of electronic components which implement additions/subtractions, etc., ~~as specified by the relation given in claim 1.~~ as specified by the relation, $\alpha = \frac{1}{2} * ((U1/(|U1|+|U2|))-1 * \text{sgn}(U2)$ where an external magnetic field is relative to a magneto resistive angle sensor with two full bridges which respectively supply an output signal $U_1 = U_0\sin(2\alpha)$, $U2 = U_0\cos(2\alpha)$. Such addition or multiplication elements are known to the person skilled in the art. They offer the advantage that they are cost-effective and are not very liable to faults, so that the determination of the angle α can be carried out in an economic manner with sufficient accuracy using the afore-mentioned relation. ~~claimed equation~~.

It will be understood that the determination of the angle α of an external magnetic field relative to a magnetoresistive sensor may be used in any technical field. Particularly, preferably, however, For example, the method may be used in motor vehicle technology, in particular to monitor the position of a pedal. ~~the method is used in motor vehicle technology, as specified in claim 4, in particular to monitor the position of a pedal, for example the gas and/or brake pedal.~~ The pedal may include the gas pedal or brake pedal and either one or the other or both may be monitored. A position of a throttle for controlling the engine power may also by monitored by the present invention. ~~means of the method.~~